from chemical processing collect on the filter surface and form a moist, slush-like cake that absorbs HF and infiltrates the pores of the filter paper. Special filter papers have been formulated with 7 percent Nomex fibers to provide extra chemical resistance for this type of service.

Aluminum separators are especially susceptible to chemical attack by many substances other than HF. United States requirements call for vinyl-epoxy coatings of 0.2 to 0.3 μm in thickness on both the sides and edges of aluminum separators when the presence of acid is predicted. Stainless steel separators are a more costly alternative.

Deep-bed filters of sand, gravel, and crushed stone do not compete directly with HEPA filters, except at a few installations involved in chemical operations associated with fuel reprocessing, but they have recently come under intense study as a means of mitigating core meltdown events by providing a filtration capacity for venting containment vessel overpressures and for coping with a possible hydrogen burn inside the containment. DBS filters have also been studied extensively for a potential role in mitigating loss of coolant accidents for metal-cooled reactors.

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